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**NEWS
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**JOURNAL OF THE HYDRAULICS DIVISION
PROCEEDINGS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS**

DIVISION ACTIVITIES

HYDRAULICS DIVISION

Proceedings of the American Society of Civil Engineers

NEWS

June, 1959

PURPOSE OF THE HYDRAULICS DIVISION

(Quoted from the Official Register)

"The advancement and dissemination of knowledge relating to the occurrence of water in nature and its behavior in structures, water courses, and underground.

"In particular the field of the Hydraulics Division shall embrace meteorology and hydrology as they affect the engineer, fluid mechanics in engineering usage, and applied hydraulics as a branch of engineering science which furnishes the basis for hydraulic design and for the practical use of water in different specialized branches of branches of hydraulic engineering."

EXTRACTS FROM FEBRUARY MEETING OF THE EXECUTIVE COMMITTEE, HYDRAULICS DIVISION

This meeting of the Executive Committee was held on Friday and Saturday, and 21 February 1959, at the Palmer House in Chicago, Illinois. The Committee Chairman, Professor Carl E. Kindsvater, presided. Those in attendance were:

Professor Carl E. Kindsvater, Chairman
Dr. Arthur T. Ippen, Vice-Chairman
Mr. Harold M. Martin
Mr. Maurice L. Dickinson
Mr. Joseph B. Tiffany, Secretary
Mr. Earl F. O'Brien, Contact Member

Among other activities, the Chairman appointed the following contact members to represent the Executive Committee in dealings with the technical and administrative committees:

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<u>Committee</u>	<u>Representative</u>
Sedimentation	Mr. Martin
Tidal Hydraulics	Mr. Martin
Publications	Mr. Martin
Hydraulic Structures	Mr. Dickinson
Flood Control	Mr. Dickinson
Research	Dr. Ippen
Hydromechanics	Dr. Ippen
Hydrology	Dr. Ippen
Standards	Professor Kindsvater

The next meeting of the Executive Committee will be held at Denver, Colorado on Tuesday, 30 June 1959, the day preceding the opening of the Ft. Collins Hydraulics Division Conference.

HYDRAULICS CONFERENCE AT FORT COLLINS, COLORADO July 1 - 3, 1959

The April issue of the Newsletter contains a fairly complete announcement of the eighth national conference of the Hydraulics Division, including a tentative program of the technical sessions. The final technical program and schedules, with the exception of two papers, are as follow:

Wednesday Morning, July 1

Sponsored By The Hydraulic Structures Committee

Presiding: C. E. Kindsvater, Chairman, Executive Committee, and
A. J. Peterka, Member, Hydraulic Structures Committee

THE MANIFOLD STILLING BASIN, Maurice L. Albertson, Director, Research Foundation, Colorado State University, Fort Collins, Colo., and Gene R. Fiala Highway Design Engineer, U. S. Bureau of Public Roads, Portland, Ore.

THE VORTEX CHAMBER AS AN AUTOMATIC FLOW-CONTROL DEVICE, Richard C. Kolf, Assistant Professor, and Paul B. Zielinski, Assistant Instructor, Marquette University, Milwaukee, Wis.

NEW CONCEPTS IN TUNNEL SPILLWAY DEFLECTOR-BUCKET DESIGN, T. J. Rhone and A. J. Peterka, Engineers, Bureau of Reclamation, Denver, Colo.

Wednesday Afternoon, July 1

Sponsored By The Hydromechanics Committee

Presiding: Arthur T. Ippen, Vice-Chairman, Executive Committee, and
Donald R. F. Harleman, Member, Hydromechanics Committee

SYMPOSIUM ON HYDRAULIC MODELS - PART ONE

A UNIFIED CONCEPT OF DYNAMIC SIMILARITY IN FLUID MODELS, Donald R. F. Harleman, Associate Professor of Hydraulics, Massachusetts Institute of Technology, Cambridge, Mass.

SIGNIFICANCE AND APPLICATION OF FROUDE AND REYNOLDS NUMBERS CRITERIA FOR SIMILITUDE, H. K. Liu, Associate Civil Engineer, and L. Albertson, Director, Research Foundation, Colorado State University, Fort Collins, Colo.

DYNAMIC SIMILARITY IN WAVE AND TIDAL MODELS, F. Gerritsen, Associate Professor, Coastal Engineering Laboratory, University of Florida, Gainesville, Fla.

VARIATION AND SCALING OF INERTIA AND VISCOUS FORCES IN PERIODIC FLOWS, Gershon Kulin, Hydraulic Engineer, Fluid Mechanics Section, National Bureau of Standards, Washington, D. C.

Thursday Morning, July 2

Sponsored By The Tidal Hydraulics Committee

Presiding: J. B. Tiffany, Secretary, Executive Committee, and L. P. Disney, Chairman, Tidal Hydraulics Committee

SYMPOSIUM ON INSTRUMENTATION

NEW INSTRUMENTS DEVELOPED BY THE U.S.G.S. FOR THE MEASUREMENT OF TIDAL FLOW, E. G. Barron, Hydraulic Engineer, Research Section, Surface Water Branch, U. S. Geological Survey, Columbus, Ohio.

RECENT DEVELOPMENTS BY THE COAST AND GEODETIC SURVEY OF EQUIPMENT FOR THE MEASUREMENT AND REMOTE RECORDING OF WAVES AND CURRENTS, A. J. Goodheart, Division of Tides and Currents, Coast and Geodetic Survey, Washington, D. C.

PRESSURE-TYPE TIDE AND WAVE RECORDER, E. H. Bowler, Instruments and Control Systems Laboratory, National Research Council of Canada, Ottawa, Canada.

SPECIAL DEVELOPMENTS IN OCEANOGRAPHIC INSTRUMENTS, J. M. McGlass, Head, Special Developments Division, Scripps Institution of Oceanography, La Jolla, Calif.

Thursday Afternoon, July 2

Sponsored By The Sedimentation Committee

Presiding: Harold M. Martin, Member, Executive Committee, and E. J. Carlson, Member, Sedimentation Committee

SEDIMENTATION AND CONSERVATION ON WESTERN ARID LANDS, H. V. Peterson, Area Chief, General Hydrology Branch, U. S. Geological Survey, Denver, Colo.

USE OF ULTRASONICS IN THE MEASUREMENT OF SUSPENDED PARTICLE SIZE DISTRIBUTION AND CONCENTRATION, Gordon H. Hammer, Assistant Professor, Utah State University, Logan, Utah. (Read paper by Simons and Richardson, Fort Collins.)

Friday Morning, July 3

Sponsored By The Flood-Control Committee

Presiding: Maurice L. Dickinson, Member, Executive Committee, and Arno Lenz, Member, Flood Control Committee.

FLOOD CONTROL PROBLEMS IN THE SOUTH PLATTE RIVER BASIN, COLORADO, Stanley A. Miller, Supervisory Water Conservation Project Engineer, Colorado Water Conservation Board, Denver, Colorado.

CHANGES IN URBAN OCCUPANCE OF FLOOD PLAINS IN THE UNITED STATES, Gilbert F. White, Chairman, Department of Geography, University of Chicago, Chicago, Ill.

A NEW APPROACH TO LOCAL FLOOD PROBLEMS, Gen. Herbert D. Vogel, Chairman of the Board, Tennessee Valley Authority, Knoxville, Tenn.

A SUGGESTED OUTLINE OF LEGISLATION TO ACCOMPLISH FLOOD PLAIN ZONING, author to be announced.

Friday Afternoon, July 3

Sponsored By The Hydrology Committee

Presiding: A. R. Chamberlain, Co-Chairman, Fort Collins Hydraulics Conference, and V. A. Koelzer, Member, Hydrology Committee

SYMPOSIUM OF THE USE OF ELECTRONIC COMPUTERS IN HYDROLOGY APPLICATION OF ELECTRONIC COMPUTERS TO THE SOLUTION OF HYDROLOGY PROBLEMS IN THE BUREAU OF RECLAMATION, Francis E. Swain and H. S. Reisbol, Bureau of Reclamation, Denver, Colorado.

THE ROLE OF ELECTRONIC COMPUTERS IN HYDROLOGIC STUDIES OF THE TVA, W. M. Snyder, Tennessee Valley Authority, Knoxville, Tenn.

COLUMBUS RIVER SYSTEM POWER ANALYSIS BY USE OF DIGITAL COMPUTER, David J. Lewis and Loren A. Shoemaker, Corps of Engineers, U. S. Army North Pacific Division, Portland, Ore.

THE USE OF HIGH-SPEED COMPUTING EQUIPMENT IN WATER RESOURCES INVESTIGATIONS OF THE U. S. GEOLOGICAL SURVEY, G. E. Harbeck, Jr., and W. L. Isherwood, U. S. Geological Survey, Denver, Colorado.

PAPERS ON CHANNEL ROUGHNESS SOUGHT BY HYDROMECHANICS COMMITTEE

The Hydromechanics Committee, through the Task Force on Friction Factors in Open Channels, is in the process of preparing a study of the problem of frictional flow in open channels. In this connection the Task Force is sponsoring the preparation of papers dealing with this subject, and containing ideas or data that may be useful.

Papers may be submitted through regular channels, for publication or presentation at appropriate meetings, or transmitted through the Task Force. Authorship will of course be fully recognized. Dates for publication or presentation will be arranged following receipt. Both ideas and data are needed. Papers giving results of field or laboratory measurements of roughness on fixed and moveable bed channels are desired. Also, measurements for channels of unusual form. To be useful to Task Force, each prepared paper (but not necessarily the oral presentation) should present not only the roughness coefficient in the author's formula, such as Manning's "n," but also all available related data such as length, slope, mean velocity, cross section characteristics, and bed material characteristics. Conversion by the author of his coefficient of roughness to values of "n" and to Chezy's "C" or the Darcy-Weisbach "f" will also be helpful.

prospective authors are urged to contact Mr. Julian Hinds, P. O. Box 871, La Paula, California, who is Chairman of the Task Force.

TIDAL HYDRAULICS COMMITTEE ACTS

The continuing prosperity may be threatened by the industrial, urban and cultural enterprises bordering many of the tidal estuaries of these United States. Upstream consumptive-use development with its depletion of fresh water inflows to estuaries is steadily permitting farther and farther intrusion of salt water which, in turn, is substantially deteriorating the riparian water qualities to degrees of uneconomical or unpotable usefulness. Disposal of liquid and solid pollutants and contaminants into estuaries and along shores, which has long been dependent upon dilution by inflowing upstream fresh water, must now and in the future depend far more upon the mechanical and physical characteristics of the estuarial or littoral tidal prisms. These are some of the knotty facets facing the Committee on Tidal Hydraulics in its task of evaluating and stating the problem of relation and effect of tidal hydraulic phenomena upon the vast array of enterprises which are environmental and riparian to estuaries and shores. During its meeting in Fort Collins, Colorado, on March 19th the committee gave much consideration to activities concerned with the influences of tidal regimen upon local water quality, salinity control, sanitation, sedimentation, and general local usability of the riparian estuarial and littoral waters. The committee is sponsoring technical sessions in Reno in June 1960, and in Fort Collins in August 1960, and possibly in Boston in 1960, which will be pertinent to this and similar tidal hydraulics problems. The Committee on Tidal Hydraulics, in the Hydraulics Division, is composed of L. P. Disney, Chairman, U.S.C. & G.S., Washington, D. C.; E. P. Peterson, Past Chairman, Waterways Experiment Station, Vicksburg, Mississippi; H. G. Dewey, Jr., San Francisco District, U.S.E.D.; Irvin M. Ingerson, California State Department of Water Resources; and Raymond Boucher, Ecole Polytechnique, Montreal, Canada.

FOR YOUR CALENDAR ASCE Meetings

September 1-3, 1959	Hydraulics Division, Fort Collins Conference
October 19-23, 1959	ASCE, Washington, D.C. Convention
November 7-11, 1960	ASCE, New Orleans Convention
December 20-24, 1960	ASCE, Reno Convention
January 10-14, 1961	ASCE, Boston Convention
February 10-14, 1961	ASCE, Phoenix Convention
March 16-20, 1961	ASCE, New York Convention
April 1962	ASCE, Houston Convention
May 1962	ASCE, Omaha Convention
June 15-19, 1962	ASCE, Detroit Convention

Non-ASCE Meetings

June 15-19, 1959	American Society for Engineering Education, Pittsburgh, Pennsylvania
June 17-20, 1959	National Society of Professional Engineers, New York City
June 18-20, 1959	ASME Applied Mechanics Conference, Virginia Polytechnical Institute, Blacksburg
August 24-29, 1959	International Association for Hydraulic Research Montreal, Canada
September 9-11, 1959	Midwestern Conference on Fluid and Solid Me- chanics, University of Texas, Austin

Deadline dates for Newsletter contributions: August issue - June 20.
October issue - August 20.

USE OF THE HYDRAULICS DIVISION NEWSLETTER

You are urged to continue use of the Division Newsletter for announcements, inquiries, personnel news, committee reports, surveys and other items of interest to Division members. A short note covering the highlights of committee meetings (including task forces) is particularly requested. Suggestions for improvement of the Newsletter will be appreciated.

GUY L. ARBUTHNOT, JR.
P. O. Box 631
Vicksburg, Mississippi
Newsletter Editor

P.S. Please fill out the form on the inside back cover of the April issue and return it to Mr. Ball.